

TWO NEW NEARCTIC OXYBELUS (HYMENOPTERA, SPHECIDAE).

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Descriptions of the following new and distinctive Nearctic species of *Oxybelus* are presented here in order that they may be available in connection with other investigations.

*Oxybelus rancocas*¹ n. sp.

The apparently tridentate postscutellum caused by the slender falcate squamae and the caudally produced median carina; the spiniform mucro; and the truncate clypeus readily differentiate *rancocas* from all other described Nearctic *Oxybelus*.

Type.—♂; Atco, Camden County, New Jersey. May 21.

Male. 4 mm. long. More or less opaque black; the following stramineous: a minute spot at each lateral angle of the pronotum, squamae on inner distal two-thirds, a very small spot laterally on first abdominal tergite. Castaneous: trophi, mandibles except red apices, clypeal lobe apically. Legs dark castaneous, with tarsi fulvescent. Scape and pedicel brunneous; flagellum largely fulvous. Last two abdominal tergites fulvous. Wings clear hyaline, iridescent; veins and stigma fulvotestaceous.

Head subfulgid; suborbicular in anterior aspect; clypeus and front with a moderate vestiture of appressed silvery hair; vertex and temples with a thinner clothing of similar pubescence. Front simple, flat, transversely arcuately striatopunctate, width at distal end of scapes three-fourths the vertical eye length; vertex finely, transversely striatopunctate; ocelli in a very low triangle, the ocellocular line one-half the postocellar distance; temples finely, vertically striate; temporal carinae very feebly indicated; post-temporal and gular regions subnitidous. Antennae with scapes obterete, almost four-tenths (0.385) the vertical eye length; pedicel subcylindrical, subequal in length to first flagellar article; flagellum simple, finely puberulent, very weakly incrassate distad, second segment three-fourths the length of first, ultimate article simple, terete, twice as long as penult segment; interantennal line seven-eighths the anten-nocular distance. Clypeus finely punctate, median length four-ninths (0.44) the vertical eye length; flat laterally to gently

¹ After the Rancocas Indians, a division of the Delawares, who formerly inhabited Burlington and Camden Counties, New Jersey.

tumid discally, bisected by a low arched nitidous keel which terminates in the small, bluntly mucronate tooth of the sharply truncate, imbevelate median lobe, the apical margin of which is glabrous, nitidous, and the width one-half the vertical eye length. Mandibles falcate; inner margins on basal third with a low, weak dentiform angle.

Thorax subfulgid; with a moderate vestiture of short, decumbent hair, and moderately fine, close puncturation throughout. Pronotum very short; anterior dorsal margin with a transverse high cristate carina, notched medially, abruptly interrupted at lateral angles, then continued on tubercles. Mesonotum simple, posterior sixth bisected by a longitudinal carinule; scutellum transverse, subquadrate, lateral margins with pellucid flanges, bisected by a very strong carina; post-scutellum transversely sublinear, very short, one-fourth the length of scutellum, bisected by a high erect laminate carina which projects caudad over base of mucro, length of this carina from base of postscutellum to its apex two-thirds that of scutellum; squamae slender, falcate, simple, flat, ecarinulate, subequal in length to scutellum. Mucro very slender, spini-form, subequal in length to scutellum, channeled above, apex narrowly truncate. Mesopleura substriatopunctate; prepectus very sharply margined anteriorly; episternal suture impressed, weakly foveate; mesopleural pit weak; hypersternauli weakly impressed; sternostirae not appreciably developed; metapleura horizontally striate; mesosternum broadly rounded anteriorly. Propodeum subfulgid; lateral areas of dorsal face with a thin and inconspicuous vestiture of light puberulent hair; dorsal face finely subgranulate, traversed by fine oblique, subparallel rugulae; posterior face discally with a large, ventrally stalked, obtrigonal areole, glabrous and nitidous within, open and with fine oblique rugulae above, lateral areas with fine, horizontal, subparallel rugulae which on upper half are continuous onto lateral faces; lateral carinae well developed along dorsal face, and distinct, simple, not forked below, along lower half but obsolete along upper half of posterior face; lateral faces finely subgranulate, with superposed subhorizontal, subparallel, fine rugulae.

Legs simple. Fore tibiae with a few weak spines on outer faces; fore metatarsi with four weak spines. Middle and hind tibiae moderately spinose on outer faces.

Abdomen subfulgid; with a thin vestiture of short, decumbent, silvery hair, most noticeable along caudal margins of

tergites; weakly constricted between segments. Tergites with close, moderate puncturation throughout; first bisected by a weak and inconspicuous impression; latero-apical spines absent, weakly indicated on fifth and sixth tergites, the latter in addition with sharp dorsolateral carinule laterally. Pygidium subrectangular, slightly longer than broad, disc coarsely punctate, apex gently rounded out. Sternites fulgid, more sparsely punctate than tergites.

Female. Unknown.

Paratype: Camden County, New Jersey; June 28, 1891: 1 ♂; [USNM].

*Oxybelus cochise*² n. sp.

The superficial habitus of *cochise* is very similar to that of *cornutum* but is readily differentiated from that form by the strong and continuous pronotal carinae, unbroken at the lateral angles as they are in *cornutum*, the presence of distinct dorsolateral carinules apically on the penult abdominal tergite, and the quinquedentate rather than tridentate clypeal lobe of the males.

Type.—♂; Steins, Hidalgo County, New Mexico. July 14, 1917. [J. C. Bradley and J. Bequaert; on pods of *Acacia Greggii* (Cat's-claw).]

Male. 4.5 mm. Black; the following citrinous: mandibles except red apices, pronotal dorsum entirely to and including tubercles, inner margins of squamae, fore and middle femora below, fore and middle tibiae entirely, hind tibiae on outer faces, and all tarsi; and abdomen with a large quadrate to ovate spot laterally on first four tergites. Castaneous: clypeal lobe apically, and pedicel. Scape brunneous; flagellum at base fulvous beneath, brunneous above, becoming entirely bright fulvous apicad except last article which is abruptly brunneous. Tegulae and axillary sclerites bright fulvous. Wings clear hyaline, iridescent; veins and stigma light brunneous.

Head subfulgid; clypeus clothed with dense appressed silvery sericeous pile; front, vertex and temples of appressed silvery hair. Front flat to gently tumid, simple, with moderately coarse, separated puncturation, width at distal end of scapes five-ninths the vertical eye length; vertex with puncturation similar to but slightly coarser than front; ocelli situated in a very low, broad triangle, hind ocelli along inner anterior margins strongly tumid and subnitidous, ocellocular line three-

² After Cochise, the Chiricahua Apache Indian chieftain.

tenths the postocellar distance; with a median, perfulgid, nitidous, glabrous tubercle behind postocellar line; temples rather finely striato-punctate; temporal carinae absent. Antennal scapes incrassate distad, one-third the vertical eye length; pedicel suborbate, four-fifths the length of first flagellar article; flagellum simple, finely puberulent, second segment four-fifths the length of first, last article twice the length of penult segment; interantennal line five-sevenths the antennocular distance. Clypeus short, transverse, median length about one-fifth (.177) the vertical eye length; flat and attenuate laterally, disc bisected by a rostriform keel ending in the median tooth of the preapically tridentate median lobe, the apex of which is furnished with an inflexed, nitidous, transversely linear, concave bevel quinquedentate at apex. Mandibles slender, falcate; apices simple; inner margins edentate.

Thorax more or less fulgid; with close, moderately coarse, setigerous punctures on dorsum and pleura; dorsally with a moderate vestiture of reclivous argenteo-aeneous hairs, pleura more noticeably clad with appressed silvery hair. Pronotum short, transverse; dorsal surface flat, sharply carinate anteriorly to and including the tubercles, the lateral angles sharply angulate, the carina continuous, not interrupted there. Mesonotum simple; suture between mesonotum and scutellum impressed, foveolate; axillae small, immarginate; scutellum transversely subsemicircular, gently tumid, coarsely punctate, bisected by a longitudinal carinule, lateral edges strongly marginate; postscutellum one-half length of scutellum, bisected by an erect laminate keel; squamae large, stoutly subfalcate, outer halves pellucid and transversely carinulate, apices acute, posterior (inner) margins concave, alobate. Mucro spiniform, seven-eighths the length of scutellum, canaliculate above, apex acute. Mesopleura with prepectus very sharply margined anteriorly; episternal suture foveolate; hypersternauli not apparent; each sharp vertical precoxal carina with a well developed, bisinuate sternostira running obliquely forward and beneath to the very sharply margined anterior edge of mesosternum; metapleura fulgid, glabrous, with parallel horizontal costulae. Propodeum subopaque; dorsal face minutely subgranular basically, with a sparse and inconspicuous vestiture of fine puberulent hair, the lateral areas bisected by an oblique carinule (a continuation of the lateral margins of discal areole of posterior face) and traversed by more or less regular, subparallel, fine carinules; posterior face on disc with a large sharply margined

sublyriform areole, long-stalked ventrally, glabrous and nitidous within, open above, lateral areas with fine, semiconfluent punctures; lateral carinae well developed for entire length, sublaminar above, simple, not forked below; lateral faces fulgid, subnitidous anteroventrally but posteriorly and above with a few widely separated, subparallel, horizontal costulae.

Legs: fore metatarsi with four weak spines. Middle tibiae moderately, hind tibiae strongly, spinose on outer faces; hind femora with a sharp sublaminar fornicate keel above at apex.

Abdomen fulgid; with a moderate vestiture of short, decumbent, light hair; strongly constricted between segments. Tergites with rather coarse and close, setigerous punctures throughout; third to sixth inclusive with strong latero-apical spines; penult with well developed dorsolateral carinules apically; pygidium elongate subrectangular, disc coarsely punctate. Sternites perfulgid, more sparsely punctate than tergites.

Allotype. ♀; Topotypical. Same data as type.

Female. 7 mm. long. Similar to male (type) except in the following features:

Livery: antennal scape and last flagellar article fulvous. Fore legs distad of coxae fulvous. Middle femora with a stramineous streak below from apex. Middle tibiae and hind legs entirely black. Abdomen with lateral tergal spots narrower and more elongate, the fourth tergite with a preapical fascia; last segment rufescent.

Head in general the same, but width of front at distal end of scapes four-fifths the vertical eye length; ocellular line three-eighths the postocellar distance. Antennal scapes two-fifths the vertical eye length; pedicel five-sevenths the length of first flagellar article; flagellum with second segment six-sevenths the length of first, last article one and four-fifths the length of penult segment; inter-antennal distance six-sevenths the antenno-cular line. Clypeus with median length three-tenths the vertical eye length, discally with a sharp, compressed, porrect tubercle; median lobe with a weakly concave, transversely linear, glabrous, nitidous bevel which is immarginate above, the apex subtruncate to inconspicuously arcuate, the lateral angles sharp and acute, and laterad and separated from these with a pair of short, sharp teeth on each side.

Thorax in general as in male. Sternostirae absent; post-scutellum one-third the length of scutellum. Mucro three-fourths the length of scutellum.

Legs with fore tarsi slightly flattened and with a pecten of seven strong stiff spines. Middle and hind tibiae strongly spinose on outer faces; hind femora very strongly fornicate at apex.

Abdomen as in male but more finely punctate; without lateroapical spines on tergites. Pygidium elongate trigonal, the apex broadly rounded, clothed with appressed, flattened, glistening silvery setulae.

Specimens examined: 13; 10 males, 3 females, as follows:

TEXAS: Sierra Blanca, Hudspeth Co.; elevation, 4509 ft.; July 9, 1917; (R. C. Shannon): 2 ♂. NEW MEXICO: Las Cruces, Dona Ana Co.; elevation, 3883 ft.; August 28; (T. D. A. Cockerell): 1 ♂; [USNM]. Steins, Hidalgo Co.; July 14, 1917; (Bradley & Bequaert; on pods of *Acacia Greggii* [Cat's-claw]): 2 ♂, 2 ♀. ARIZONA: Fort Grant in Pinaleno Mts., Graham Co.; elevation, 4828 ft.; July 18, 1917: 1 ♂, 1 ♀. Dragoon, Cochise Co.; elevation, 4614 ft.; July 20, 1917; 1 ♂. Tucson, Pima Co.; elevation, 2389 ft.; (F. H. Snow): 1 ♀; [KU]. (C. F. Baker: no. 2572; no other data): 1 ♂; [USNM]. CALIFORNIA: Riverside; July 26, 1938; (P. H. Timberlake; on *Eriogonum fasciculatum*): 1 ♂; [Timberlake].

The paratypes agree with the typical pair in all essential details of livery and structure save that the Sierra Blanca specimens are somewhat cyanided.

Notes on Heliothiinae—*Schinia tuberculum* Hbn.—Several years ago, Mr. George P. Engelhardt turned over to me some heliothid moths which he had taken at Coram, Long Island, N. Y., in mid-August, 1920. In August 1938, I visited Coram and in the course of an active morning took ten specimens of this moth. They occur in a sandy five acre field, in association with the sickleleaved golden aster, *Chrysopsis falcata* (Pursh) Ell. Although a careful search of the asters in the surrounding neighborhood never turns up any specimens, a checkup each subsequent year indicates that *tuberculum* still persists in this field, twenty-two years after Mr. Engelhardt's original capture of specimens. Relatively few in number as they always seem to be and narrowly restricted in habitat, this local survival of *tuberculum* suggests the tenacity of existence of seemingly fragile Lepidoptera.—ROWLAND R. McELVARE, Port Washington, L. I., N. Y.